

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)
(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference Cal 89101 | FOR FURTHER ACTION | |
| See Form PCT/IPEA/416 | | |
| International application No. PCT/EP2005/000113 | International filing date (day/month/year) 06.01.2005 | Priority date (day/month/year) 13.01.2004 |
| International Patent Classification (IPC) or national classification and IPC INV. E21B33/035 E21B34/04 F16K31/04 | | |
| Applicant DRESSER ITALIA S.R.L. et al. | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 3 sheets, as follows:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> | | |
| <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | |
| Date of submission of the demand 11.11.2005 | Date of completion of this report 19.04.2006 | |
| Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized officer Georgescu, M Telephone No. +49 89 2399-7502  | |

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY****Box No. I Basis of the report**

1. With regard to the language, this report is based on

- the international application in the language in which it was filed
- a translation of the international application into , which is the language of a translation furnished for the purposes of:
 - international search (under Rules 12.3(a) and 23.1(b))
 - publication of the international application (under Rule 12.4(a))
 - international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements* of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-12 as originally filed

Claims, Numbers

1-9 received on 11.11.2005 with letter of 10.11.2005

Drawings, Sheets

1/5-5/5 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. The amendments have resulted in the cancellation of:

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (*specify*):
- any table(s) related to sequence listing (*specify*):

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages
- the claims, Nos.
- the drawings, sheets/figs
- the sequence listing (*specify*):
- any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N) Yes: Claims 1-9

No: Claims

Inventive step (IS) Yes: Claims 1-9

No: Claims

Industrial applicability (IA) Yes: Claims 1-9

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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Reference is made to the following documents:

D1: GB 2 198 766
 D2: US 5 166 677

V - Reasoned statement with regard to novelty, inventive step or industrial applicability

V-1 Claim 1

D1, which is considered as the closest prior art, describes an electronic control system (fig.7) for a submarine actuator (page 1, lines 1-2), said actuator comprising a container body (fig.1) from which a drive shaft (16) projects that is suitable for inserting in a seat of said submarine device (page 4, lines 4-5 and page 6, lines 3-4), wherein said system comprises an electronic control board (page 15, lines 21-22) for at least one electric motor (page 12, lines 23-24), arranged inside said container body (fig.2) suitable for moving said drive shaft (page 5, penultimate line to page 6, line 3), said electronic board being suitable for receiving an electrical control signal for said actuator, generated by a remote control station (page 12, lines 15-17).

The distinguishing feature of claim 1 with regard to D1 is that "said actuator comprises two electric motors ... each motor independently from the other".

The subject-matter of claim 1 is therefore new and the claim meets the novelty requirement of Art. 33(2)PCT.

The distinguishing feature of claim 1 does not appear to be disclosed by D1 or suggested by any other prior art document. D1 discloses the presence of two motors, one electric motor and one failsafe constant torque spring motor (page 5, lines 12-13). As the spring motor compensates the electric motor in the case of a power failure, the skilled man would not find obvious to replace it with a second electric motor which can also be subject of a power failure.

The distinguishing feature of claim 1 appears to solve the problem of providing a

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better control of the submarine actuator since a further electric motor can be controlled via the driving electronics in a way in which the spring motor cannot. Therefore, claim 1 meets the requirement for inventive step of Art. 33(3) PCT.

V-2 Claims 2 to 9

Claims 2 to 9 as dependent claims from claim 1 also meet the requirements of Art. 33 PCT.

VII - Certain defects

- VII-1 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- VII-2 Contrary to the requirements of Rule 5.1(a)(ii)PCT, the relevant background art disclosed in documents D1, D2 is not mentioned in the description, nor are these documents identified therein.